

IMPLEMENTING INCENTIVE PROGRAMS TO ENCOURAGE RIGHT SIZING

ENGINEERING MANAGEMENT

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MEM 6200: ENGINEERING MANAGEMENT PROJECT

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DEFINE

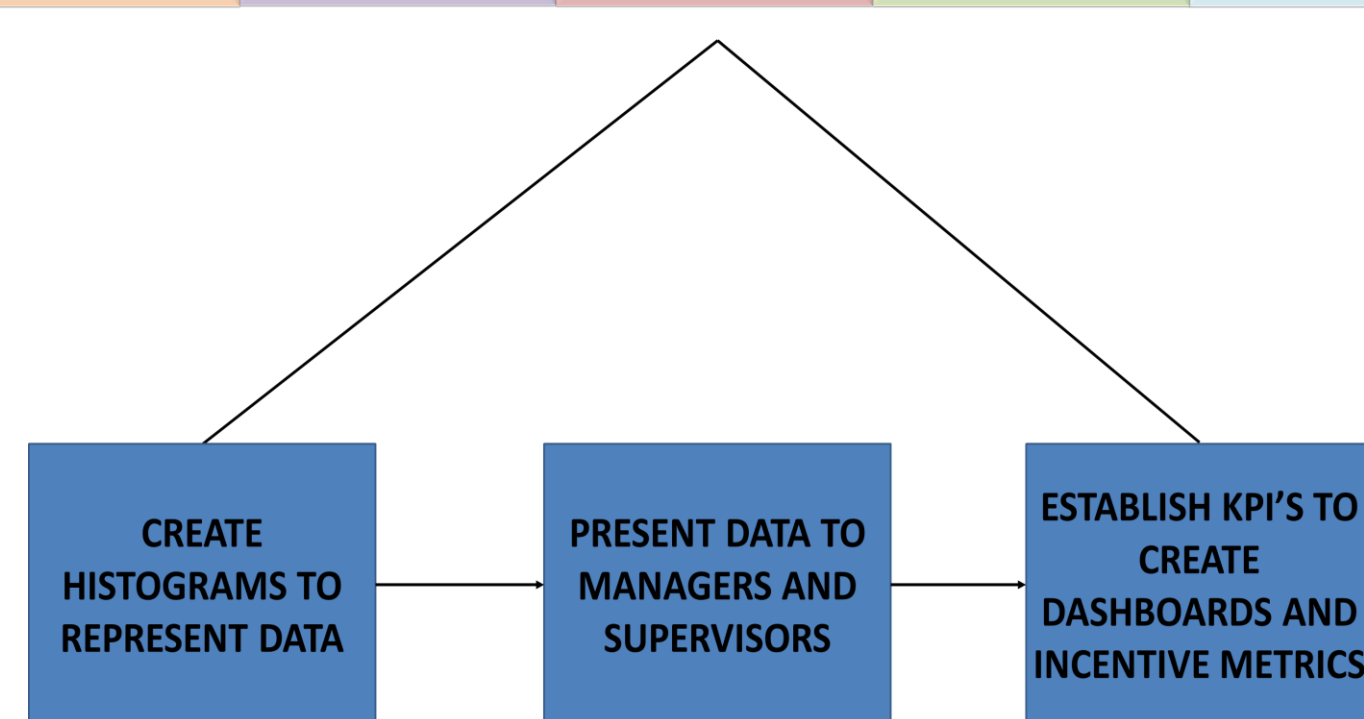
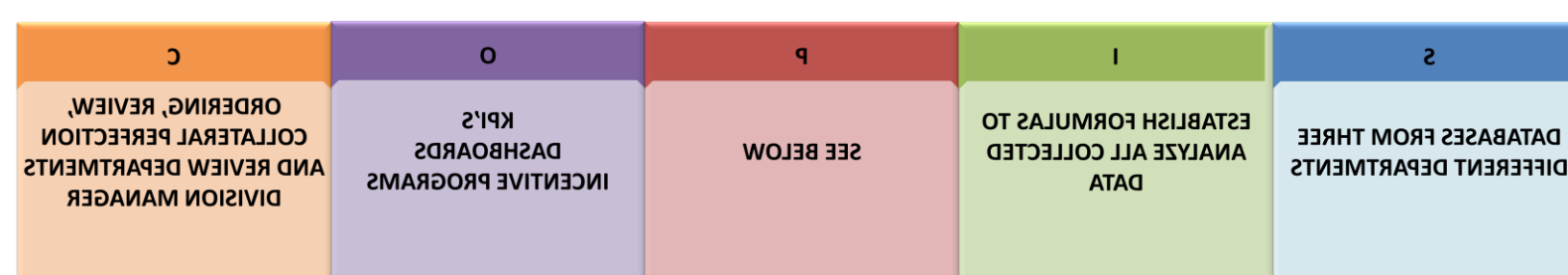
PROBLEM STATEMENT

The Commercial Credit Operations Division is responsible for booking commercial loans, modify all changes related to the loan, such as: interest rates, payments, addresses, collaterals, property and insurance taxes, among others; orders and reviews of appraisals, perfection of the collateral and the custody of the collateral.

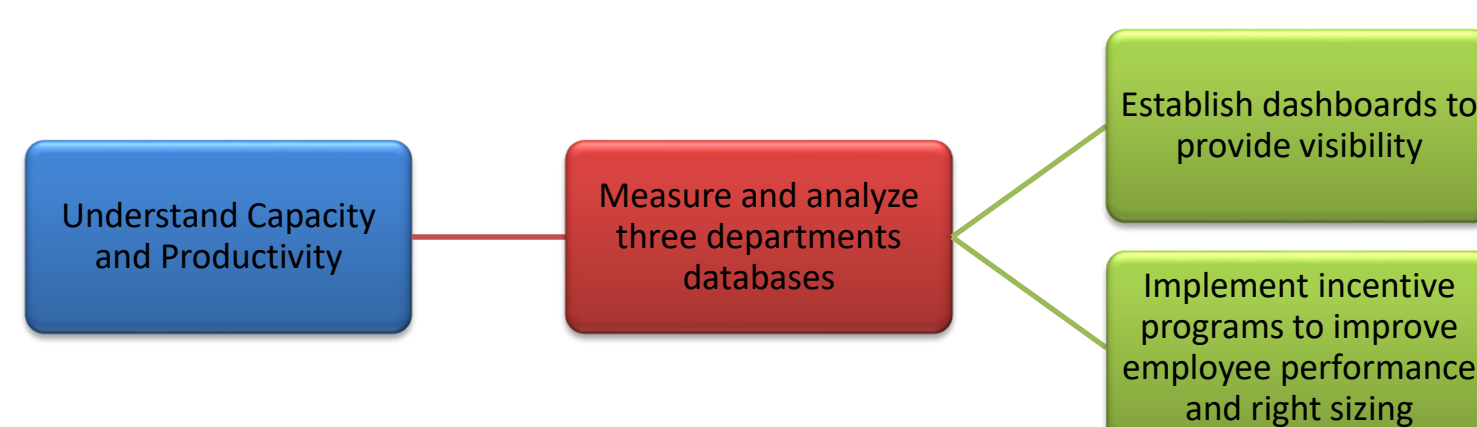
The division is moving to a lean thinking environment where all operations must be measured and take them to their optimal level by knowing the optimal number of employees needed for each operation. Productivity and Capacity per employee are unknown, key performance indicators are not established and management has no visibility of what their numbers looks like.

PROJECT DESCRIPTION

SIPOC DIAGRAM



CTQ TREE



OBJECTIVES

- Maximize capacity on 3 departments of Commercial Credit Operation Division.
- Increase employee productivity by implementing incentives based on performance.

MEASURE

DATA COLLECTION PLAN

DEFINE WHAT TO MEASURE		DEFINE HOW TO MEASURE		WHO WILL DO IT?		SAMPLE PLAN	
Measure	Type of Measure	Operational Definition	Measurement or Test Method	Data Tags Needed to Stratify the Data	Data Collection Method	Person Assigned	What? Where? When?
Capacity	Activities per workday	Employee true potential of completing an activity	Obtain reports from database	Assigned date, completed date, Activity ID, findings	Computer based	Keylian	Capacity limits Departments databases 2017 Period
Productivity	Activities per employee	Employee rate of activities per day	Obtain reports from database	Assigned date, completed date, Activity ID, findings	Computer based	Keylian	Productivity target Departments databases 2017 Period

FINDINGS

Orders per month per Employee: Ordering Department

Employees	Average orders per month	Average orders per day (threshold: at least 5 orders per day)
Employee 1	122	6
Employee 2	104	5
Employee 3	104	5
Employee 4	124	6

Reviews per month per Employee: Review Department

Employees	Average reviews per month	Average reviews per day (threshold: at least 4 reviews per day)
Employee 1	74	4
Employee 2	55	3
Employee 3	63	3
Employee 4	71	4
Employee 5	42	2
Employee 6	74	4
Employee 7	81	5
Employee 8	51	3
Employee 9	65	3
Employee 10	46	2
Employee 11	56	3

Cases per month per Employee: Collateral Perfection Review Department

Employees	Average reviews per month	Average reviews per day (threshold: at least 4 reviews per day)
Employee 1	61	3
Employee 2	90	5
Employee 3	57	3
Employee 4	70	4
Employee 5	71	4

ANALYZE

5 WHY'S

Why not understanding productivity isn't helpful?

- Employees and managers will not have the right metrics and objectives.

Why?

- Because the lack of analysis on databases.

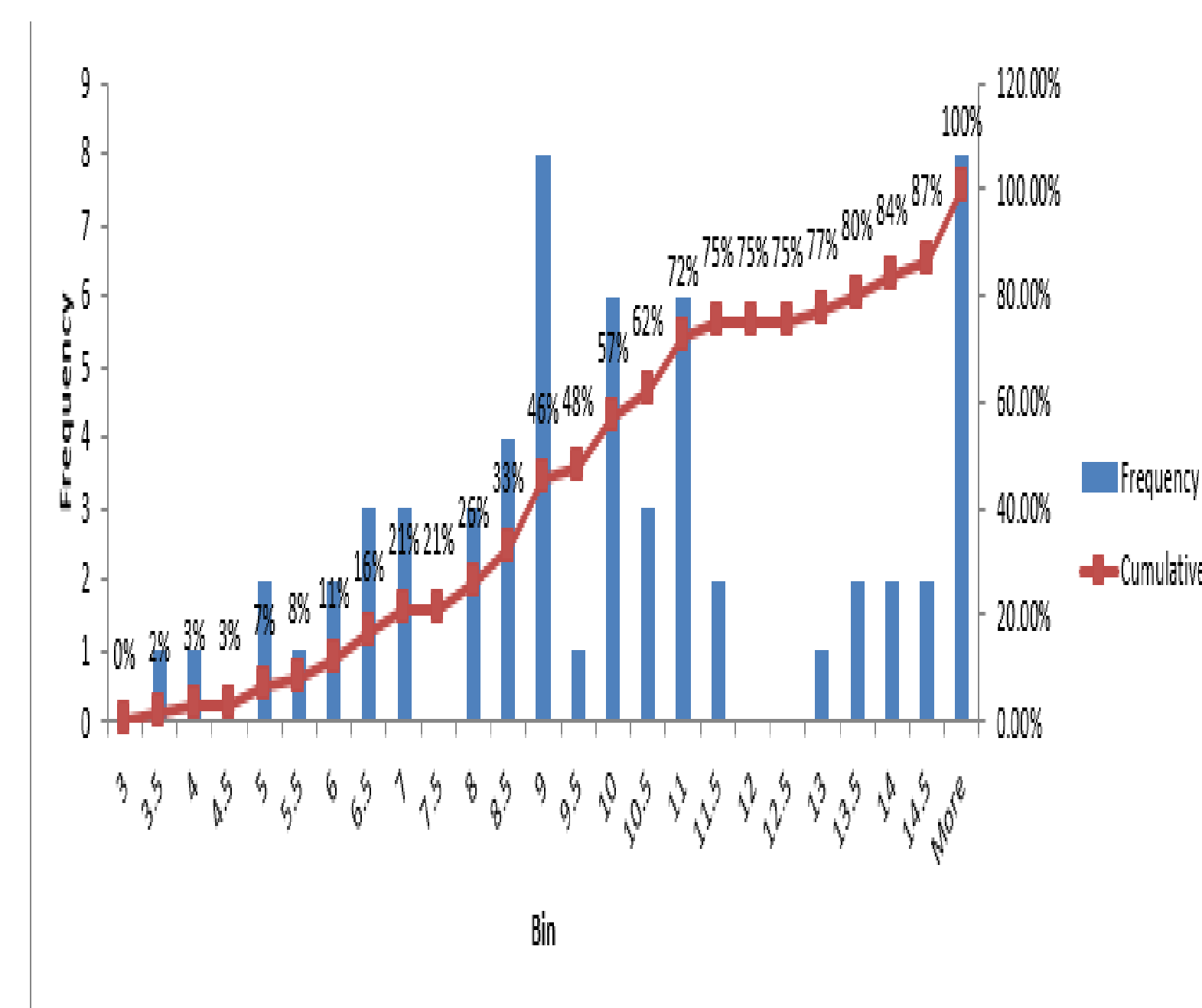
Why?

- Because objectives are based on perspective

Why?

- Because there is no time to understand capacity and available data.

HISTOGRAMS

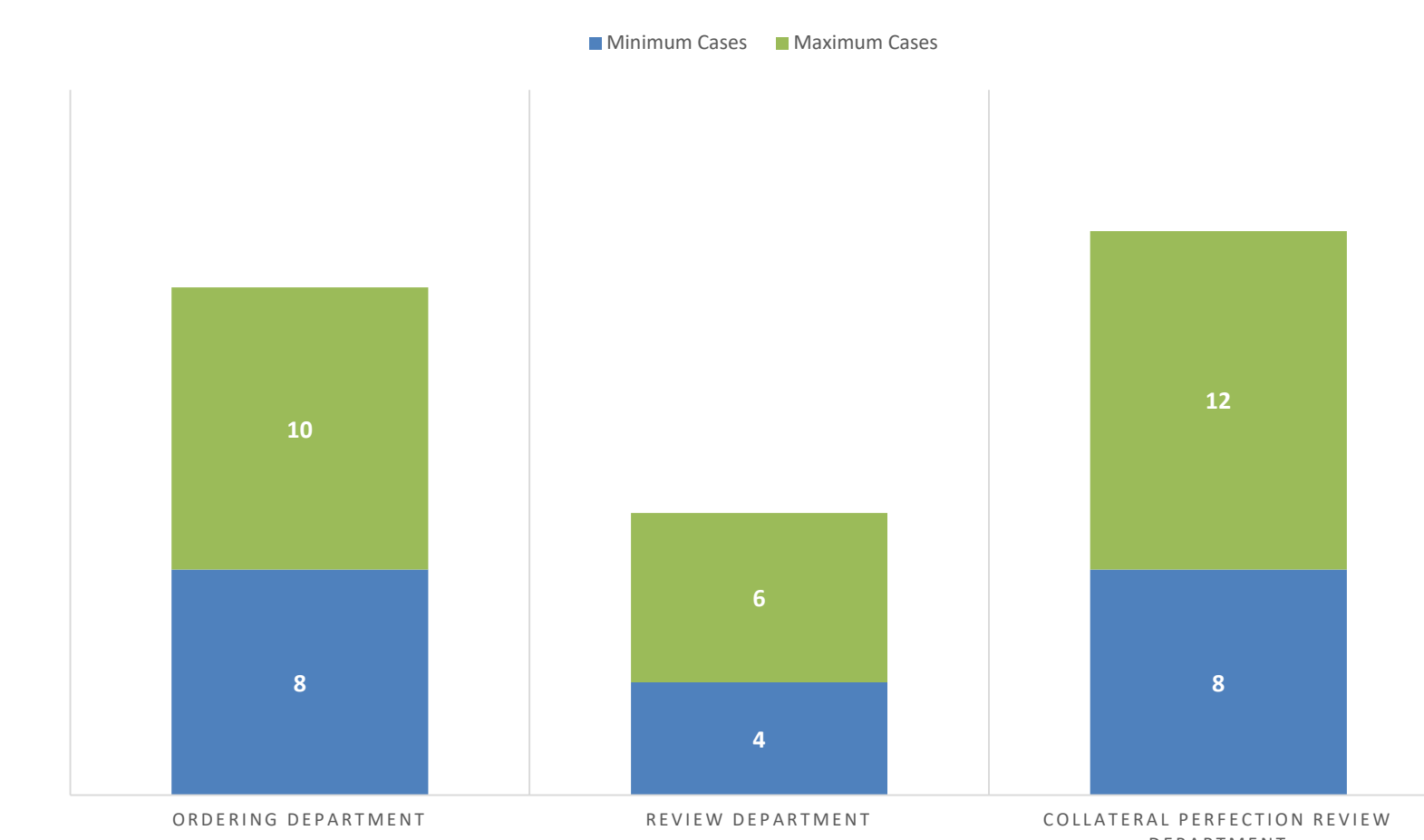


Histograms were made on all departments to establish the thresholds of productivity and capacity.

By analyzing the data through histograms, the underlying frequency distribution of a set of continuous data is shown.

After analyzing all histograms the following conclusions were made:

LOWER AND UPPER LIMITS



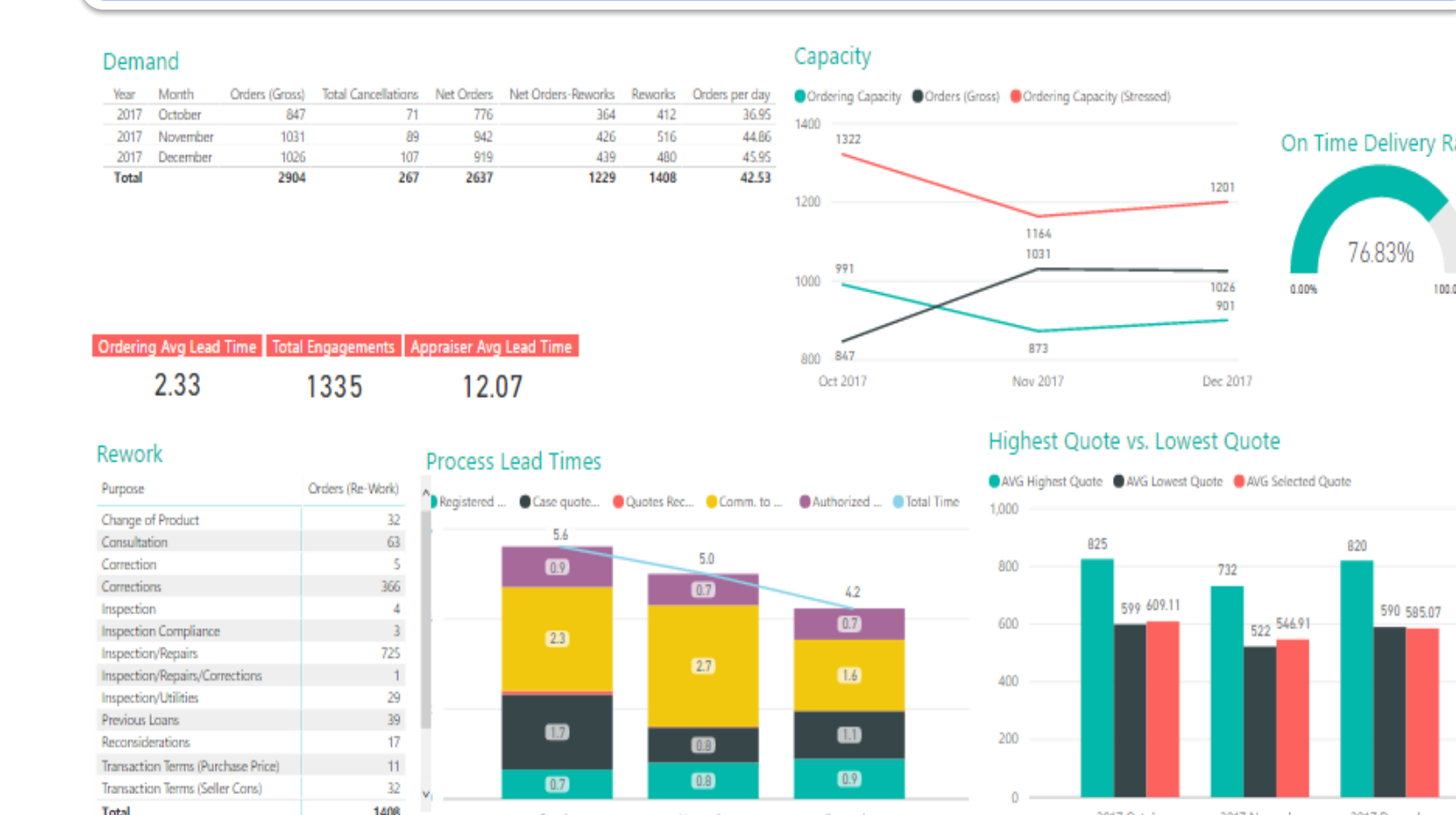
IMPROVE

POTENTIAL SOLUTIONS

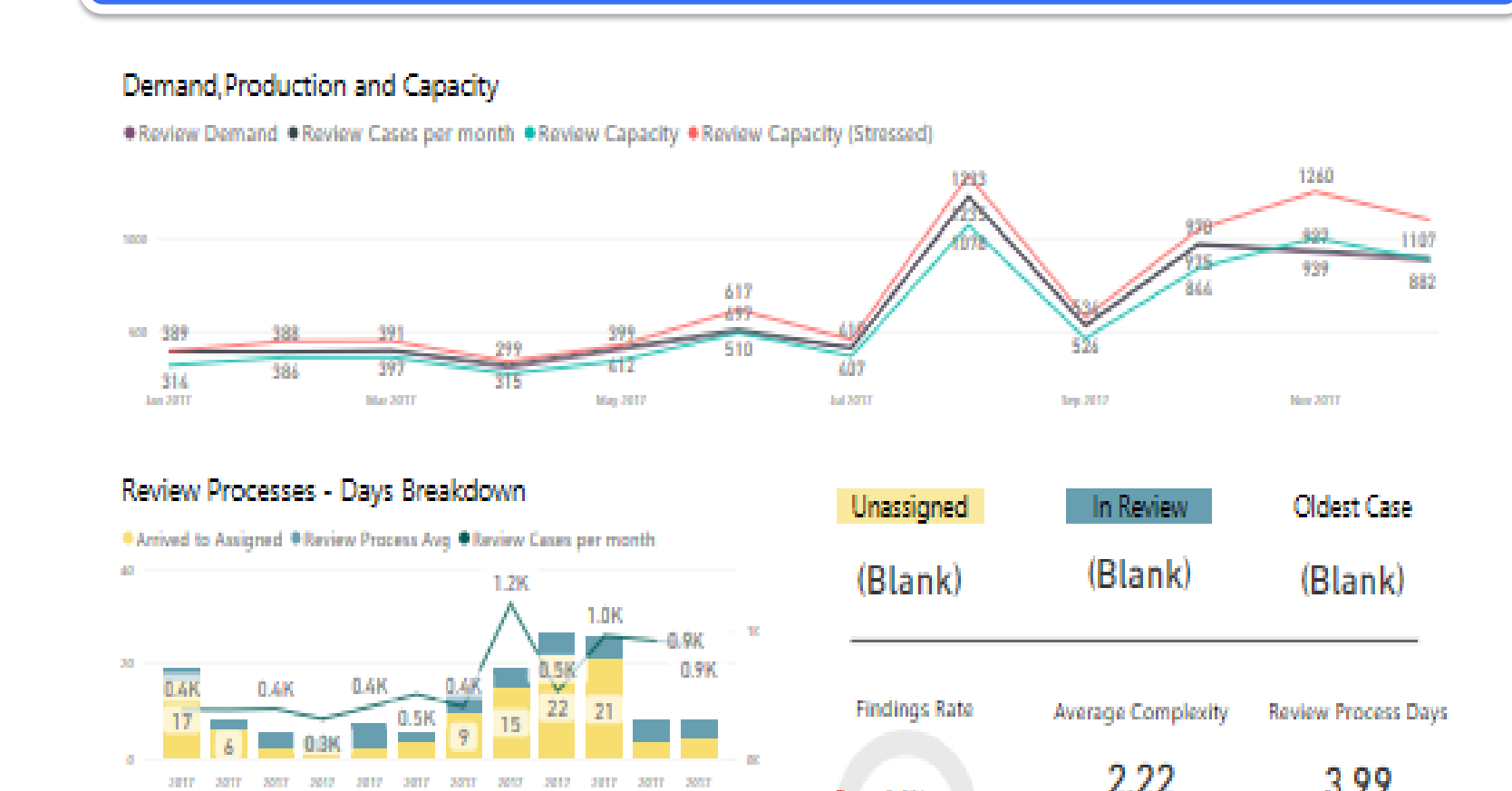
List of Root Causes	List Solutions	% Effect	Estimated Cost	Complexity	Estimated Benefit	Risk	Priority	Validation?	When?
Lack of metrics and lack of visibility	Monitor databases and program dashboard on Power BI	100%	50	Medium	Management and employees will have a better understanding of their goals	Low	1st	No	2018 Period
Lack of incentives implementation	Once the metrics are well established, determine a budget for incentives per department	100%	No data	High	Computer based	Medium	1st	Yes	2018 Period

DASHBOARDS EXAMPLES

ORDERING DAHSBOARD



REVIEW DAHSBOARD



All dashboards were made showing two parts of the business: operational and productivity per employee. This is to provide an entire visibility to managers and employees of how the business and the metrics established are month by month.

CONTROL

PROJECT CONTROL PLAN

	Cases	Days worked	Cases per day	Incentive Threshold	Weight	Points
ORDERING SPECIALIST						
Employee 1	476	45	10.6	8.0	10.0	25%
Employee 2	268	40	6.7	8.0	10.0	25%
Employee 3	351	53	6.6	8.0	10.0	25%

An excel file was created to supervisors that will served as a scorecard to employees in order for them to receive incentives.

The next steps are to standardize the implementation of the incentive program through all the departments. And also, provide trainings through all departments of how to understand KPI's and how to navigate on Power BI.

PROJECT CONCLUSION

The project was based on understanding through data employee productivity and capacity. It is completely amazing how much a company could achieve if they understand their numbers and identify KPI's who will help employees to perform better. It was seen that employees were satisfied and feeling comfortable now that they will be able to watch their performance monthly. Motivation between them increase and managers feel more secure in decision making thanks to the visibility of their numbers.

BIBLIOGRAPHY

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Patkin, T. (2012). Tap into the Power of Thanks: Six Effective (and Affordable) Ways to Improve Your Organization's Morale, Motivation, and the Bottom Line. Hudson Valley Business Journal, 1(14), 4.